Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A magnetic garnet single-crystal film, comprising:

a substrate and a magnetic garnet single-crystal grown on said substrate, wherein said crystal has a lattice constant ~~of the magnetic garnet single-crystal which does not vary or gradually decreases~~that either remains constant or gradually decreases, and then increases, in ~~the~~ a direction in which ~~the~~ said film ~~grows~~was grown on said substrate.

2. (Currently Amended) A method for producing a magnetic garnet single-crystal film by growing a Bi-substituted magnetic garnet single crystal in a mode of liquid-phase epitaxial growth, comprising the steps of:

controlling a lattice constant of the growing magnetic garnet single crystal so that the lattice constant ~~does not vary~~remains constant or gradually decreases with the growth of the single-crystal film for a period of time from a start of the liquid-phase epitaxial growth of the film, and then controlling the lattice constant of the growing magnetic garnet single crystal so that the lattice constant increases with the growth of the single-crystal film in a direction in which said film has grown.

3. (Currently Amended) A Faraday rotator produced by working a magnetic garnet single crystal film formed in a mode of liquid-phase epitaxial growth, comprising:

a lattice constant A of ~~the~~ a light-receiving surface of the magnetic garnet single-crystal film;

a lattice constant B of ~~the~~ a light-emitting surface of the magnetic garnet single-crystal film; and

a lattice constant C of ~~the~~ a region of the magnetic garnet single-crystal film spaced ~~by~~ nearly ~~the same distance both~~equidistant from the light-receiving surface ~~of the film~~ and from the light emitting surface ~~thereof~~;

wherein the lattice constants A, B and C satisfy the requirement, $(A + B)/2 > C$.

4. (New) A method for producing a magnetic garnet single-crystal film, said method comprising:

growing said film on a CaMgZr-substituted GGG single-crystal substrate having a thickness of t,

controlling said growth of said film such that a lattice constant of said film either is the same as a lattice constant of said substrate at room temperature or gradually decreases, within a period of time after said film has started to grow and before a thickness of said film is about t/2, and

controlling said growth of said film such that said lattice constant of said film increases with an increase in said thickness of said film, in the direction in which said film has grown, after said thickness of said film is at least about t/2.

5. (New) A method for producing a magnetic garnet single-crystal film by growing a Bi-substituted magnetic garnet single crystal on a substrate, said method comprising:

controlling a lattice constant of said film to be constant or gradually decreasing while a thickness of said film is smaller than about half of a thickness of said substrate, and

controlling said lattice constant of said film to be increasing after said thickness of said film has reached at least about half of said thickness of said substrate.

6. (New) A magnetic garnet single-crystal film produced by the method of claim 2.

7. (New) A magnetic garnet single-crystal film produced by epitaxial growth, comprising a substrate, a film formed on said substrate, and an interface between said substrate and said film, wherein said film has a thickness larger than a thickness of said substrate, and wherein said film is substantially free from cracks at said interface.

8. (New) The magnetic garnet single-crystal film of claim 7, wherein said film is substantially free from concentric circle cracks.